

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

PPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/660,016 09/11/2003		09/11/2003	Andrew G. Jenkins	X-1418 US	5910
24309	7590	03/08/2005		EXAMINER	
XILINX, I	NC			SIEK, V	UTHE
ATTN: LE	GAL DEPA	ARTMENT			
2100 LOGI	C DR		ART UNIT	PAPER NUMBER	
SAN JOSE	, CA 951	24	2825		

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Edenouse of time may be available under the provision of 37 CPR 1.13(e), in no event, however, may a reply be timely filled at the TSR (b) (EAT) from the distillation of the time of the provision of 37 CPR 1.13(e), in no event, however, may a reply be timely filled at the TSR (b) (EAT) from the distillation of the time of the provision of 37 CPR 1.13(e), in no event, however, may a reply do say will be considered timely. If NO pended for reply is specified above, the maximum sclutory pends was play and wile explication to become ABANDONED (38 U.S.C. § 133). Any reply received by the Diste date then there and explored above, the maximum sclutor by maximum sclutors, even if timely filled, may reduce any comment platent tem adjustment. See 37 CPR 1.734(e). Status 1) Responsive to communication(s) filled on 11 September 2003. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) 1-34 is/are rejected. 7) Claim(s) is/are allowed. 6) Claim(s) 1-34 is/are rejected to by the Examiner. 4) The greeification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CPR 1.85(a). Reptacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CPR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreig		Application No.	Applicant(s)					
Vuthe Siek 2825		10/660,016	JENKINS, ANDREW G.					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address = Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ② MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Educations of other may be evaluated used the provision of 37 CFR 1.78(a). In no event, however, may a neply be timely filed the period for reply separate used to the provision of 37 CFR 1.78(a). In no event, however, may a neply be timely filed for the period for reply separated used the provision of 37 CFR 1.78(a). In no event, however, may a neply be timely filed for the period for reply separated used to the provision of the period for reply separated used to the period for reply separated used to the period for reply will, by satisfact cause the application in become ABANDONED (85 U.S. €, § 135). If NO period for reply is period doze, the maximum statistary period will give place and even the satisfaction is the communication. Feature to septimize the madeutinent Sea 37 CFR 1.794(b). Status 1 ∑ Responsive to communication(s) filed on 11 September 2003. 2a) ☐ This action is FINAL. 2b) [∑ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4 ∑ Claim(s) 1.32 is/are pending in the application. 4 ∑ Claim(s) 1.32 is/are analowed. 4 ∑ Claim(s) 1.32 is/are analowed. 5 ∑ Claim(s) 1.32 is/are objected to. 8 ∑ Claim(s) 1.32 is/are objected to. 9 ∑ The specification is objected to by the Examiner. 10 ∑ The drawing(s) filed on 11 September 2003 is/are: a)∑ accepted or b)☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. Sea 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to by the Examiner. 10 ∑ The cath or declaration is objected to by the Examiner.	Office Action Summary	Examiner	Art Unit					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. ■ Educations of tone may be available under the provisions of 37 CFR 1.35(a). In no ovent, however, may a neply be timely fited ■ the period for engly specified above. Be maintained statistory partial with a specified above. The maintained statistory partial value apply and will expire SIX (5) MONTTS from the maining date of this communication reply as specified above. The maintained statistory partial value apply and will expire SIX (5) MONTTS from the maining date of this communication. ■ 18 NO period for reply is specified above. The maintained statistory partial value apply and will expire SIX (5) MONTTS from the maining date of this communication. ■ 18 NO period for reply as specified above. The maintained statist of the mailing date of this communication. ■ 19 No period for reply as specified above. The maintained statist of the mailing date of this communication. ■ 19 No period for reply as specified above. The maintained statist of the mailing date of this communication. ■ 19 No period for reply as specified above. The maintained statist of the mailing date of this communication. ■ 19 No period for reply as specified above. The maintained statist of the mailing date of this communication. ■ 10 No period for reply as specified above. The maintained statists are specified. ■ 10 No period for the specified statists and the maintained statists. The maintained was specified and the maintained above. The maintained was specified and the maintained above. The maintained was specified and the maintained was specified and the maintained above. The maintained was specified and the maintained was speci								
THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be willed under the provision of 3 CFR 1.35(a). In no event, however, may a reply be timely field after SIX (6) MONTHS from the mailing date of this communication. Fallus to reply septicities or early a reply be timely field of the communication. Fallus to reply will be set or extended period for reply will, by statute, cause the application to become ARANDONED (34 U.S. 5; 135). Any reply received by the fillion after the hird length of the communication, even if timely field, may reduce any consequence plant term subjectment. See 37 CFR 1.74(b). This action is FINAL. 2b) This action is FINAL. 2b) This action is FINAL. 2b) This action is fill action is fill action in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1.34 is/are pending in the application. 4a) Of the above claim(s) is/are allowed. 6) Claim(s) 1.34 is/are rejected. 7) Claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are subjected to by the Examiner. 10) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All	The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address					
1) Responsive to communication(s) filed on 11 September 2003. 2a) ☐ This action is FINAL. 2b) ☑ This action is non-final. 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ☐ Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5 ☐ Claim(s) 1-34 is/are rejected. 7 ☐ Claim(s) 1-34 is/are rejected. 7 ☐ Claim(s) are subjected to. 8 ☐ Claim(s) are subjected to restriction and/or election requirement. Application Papers 9 ☐ The specification is objected to by the Examiner. 10 ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The cath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. Attachment(e) 1) ☒ Notice of References Cited (PTO-892) 20 ☐ Notice of Dratsperson's Patent Drawing Review (PTO-948) 30 ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/S800) Attachment(e) 1) ☒ Notice of Tortsperson's Patent Drawing Review (PTO-948) 30 ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/S800)	THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period was railure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing	16(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days fill apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONEI	nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).					
2a) This action is FINAL. 2b) This action is non-final. 3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-34 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received in Application No. application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Status							
2a) This action is FINAL. 2b) This action is non-final. 3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-34 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1 Certified copies of the priority documents have been received in Application No. 3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of Pratsperson's Patent Drawing Review (PTO-948) 3) Notice of Informal Patent Application (PTO-152)	1) Responsive to communication(s) filed on 11 Se	eptember 2003.						
3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s)		•						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4)	· <u> </u>		secution as to the merits is					
4)	,—	·— · · · ·						
4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) □ Claim(s) is/are objected to . 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) ☑ The drawing(s) filed on 11 September 2003 is/are: a) ☑ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) □ Notice of Praftsperson's Patent Drawing Review (PTO-948) 3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) □ Notice of Informal Patent Application (PTO-152)	Disposition of Claims							
4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) □ Claim(s) is/are rejected. 7) □ Claim(s) is/are objected to . 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) ☑ The drawing(s) filed on 11 September 2003 is/are: a) ☑ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) □ Notice of Praftsperson's Patent Drawing Review (PTO-948) 3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) □ Notice of Informal Patent Application (PTO-152)	4) Claim(s) 1-34 is/are pending in the application.							
5) Claim(s) is/are allowed. 6) Claim(s) is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) is/are objected to. 8) Claim(s) is/are objected to estriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of Potatsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SE/08) 5) Notice of Informal Patent Application (PTO-152)								
6 Claim(s) 1-34 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) ☑ The drawing(s) filed on 11 September 2003 is/are: a) ☑ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) □ Notice of Informal Patent Application (PTO-152)		Claim(s) is/are allowed. Claim(s) <u>1-34</u> is/are rejected.						
7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1.	·							
Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☒ Notice of References Cited (PTO-892) □ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)								
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 11 September 2003 is/are: a) accepted or b bobjected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b b Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)		election requirement.						
10) ☐ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☐ Notice of References Cited (PTO-892) 2) ☐ Notice of Oraftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) ☐ Notice of Informal Patent Application (PTO-152)	Application Papers							
10) ☐ The drawing(s) filed on 11 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☐ Notice of References Cited (PTO-892) 2) ☐ Notice of Oraftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) ☐ Notice of Informal Patent Application (PTO-152)	9) ☐ The specification is objected to by the Examine	r.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some colonge of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	,,							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)								
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)								
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)								
a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 1. Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	Priority under 35 U.S.C. § 119							
a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 1. Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)	-(d) or (f).					
2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) ☐ Notice of Informal Patent Application (PTO-152)								
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) Notice of Informal Patent Application (PTO-152)	, ,	s have been received.						
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) Notice of Informal Patent Application (PTO-152)	2. Certified copies of the priority documents	s have been received in Application	on No					
* See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) * See the attached detailed Office action for a list of the certified copies not received. 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. Paper No(s)/Mail Date. 5) Notice of Informal Patent Application (PTO-152)	3. Copies of the certified copies of the prior	ity documents have been receive	ed in this National Stage					
Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) The property of Draftsperson's Pto-948 (PTO-948) Th	application from the International Bureau	ı (PCT Rule 17.2(a)).						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application (PTO-152)								
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application (PTO-152)								
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152)	Attachment(s)							
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) Notice of Informal Patent Application (PTO-152)								
	3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 5) Notice of Informal Patent Application (PTO-152)							

Application/Control Number: 10/660,016 Page 2

Art Unit: 2825

DETAILED ACTION

This office action is in response to application 10/660,016 filed on 9/11/2003.
 Claims 1-34 remain pending in the application.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being obvious over Brown et al. (6,792,578) in view of Lee et al. (6,502,229) or Wang et al. (6,594,809).
- 4. As to claims 1 and 14, Brown et al. teach a method for correcting antenna violations in high-density integrated circuits comprising determining location of an antenna violation within a layout of a high-density IC; determining an affected input of a cell of the high-density IC based on the location of the antenna error in order to eliminate antenna violation by coupling the electrical connection between the top level metallic conductor and a diffusion region. Brown et al. do not teach identifying an available charge protection element and logically coupling the available charge protection element to the affected input of the cell. Lee et al. teach a method for inserting antenna diodes into an IC design during cell placement; therefore an available charge protection element (inserted antenna diodes) is selected and routed during ECO (engineering change order) process at input nodes of cells in order to eliminate an

Application/Control Number: 10/660,016 Page 3

Art Unit: 2825

antenna violation (Fig. 1-8, col. 5). Wang et al. teach correcting antenna violation by inserting antenna diodes within IC layout, thereby available antenna diodes can be used to couple between cells in order to avoid antenna violation (col. 3 line 53 to col. 5 line 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine these above teachings in order to correct antenna violation by selecting an available antenna diode (available charge protection element) and coupling the affected input of the cell that was accurately determined its location having antenna violation. This would be cost effective since there is no need to perform re-layout that is time consuming and costly.

- 5. As to claims 7 and 20, remarks set forth in rejecting claims 1 and 14 equally apply. In addition, Brown et al. teach accurately determining antenna violation location based on coordinates at input/output port of cells and a netlist (col. 2 line 63 to col. 3 line 33). It is noted that a netlist is described in a well known design exchange format file; therefore such limitation is art inherently.
- 6. As to claims 27 and 31, remarks set forth in rejecting claims 1 and 14 equally apply. In addition, Brown et al. teach inserting antenna diodes during initial cell placement (inserting antenna diodes during initial cell placement within the available space). Therefore, by combining these above teachings as described in rejecting claims 1 and 14, re-performing the place and route algorithm is necessary in order to coupling the available charge protection element (antenna diode) to the affected input of the cell to thereby eliminating antennal violation.

Application/Control Number: 10/660,016

Art Unit: 2825

- 7. As to claims 2 and 15, remarks set forth in rejecting claim 27 and 31 equally apply because of similar claimed limitation.
- 8. As to claims 3, 16, 28 and 32, Brown et al. teach determining the affected input of the cell (input/output port of macro having antenna violation, Fig. 2, I/O port 32) comprising identifying circuitry within the cell corresponding to the location of the antenna violation; the affected input of the cell is the input of the circuitry within the cell (I/O transistor 36 within the macro, Fig. 2).
- 9. As to claims 4, 10, 17, 23, 29 and 33, Lee et al. teach determining a closest charge protection element to the affected input (col. 5) and Brown et al. also teach determining a charge protection element along a wire coupled to the affected input (Fig. 2, lines 34, 46 and 44).
- 10. As to claims 5, 12, 18 and 25, Lee et al. teach performing initial layout, inserting antenna diodes during cell placement and re-performing the place and route (Fig. 2-3 its description). In addition, remarks set forth in rejecting claims 27 and 31 equally apply because of similar claimed limitations.
- 11. As to claims 6, 13, 19, 26, 30 and 34, all cited references teach using antenna diodes as the charge protection element or transistor.
- 12. As to claims 8 and 21, Lee et al. executing a design rule checking (DRC) (col. 4 lines 51-64).
- 13. As to claims 9 and 22, Lee et al. teach a netlist modifier module to update the netlist and routing using the modified netlist or updated netlist or generating an updated

Application/Control Number: 10/660,016

Art Unit: 2825

design exchange format file and routing using the updated design exchange format file (col. 3, Fig. 2-3).

14. As to claims 11 and 24, Brown et al. teach determining location of circuit elements having input/output port affected by antenna violation based on a netlist (library exchange file) (col. 2 line 63 to col. 4 line 44).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vuthe Siek whose telephone number is (571) 272-1906. The examiner can normally be reached on Increase Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vuthe Siek

VUTHE SIEK